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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

SWARTHOUT, BRENT

ART UNIT PAPER NUMBER

2636

DATE MAILED: 08/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/816,218

Applicant(s)

JUDGE ET AL.

Examiner

Brent A. Swarthout

Art Unit

2636

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-21 and 30-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-19 and 30-33 is/are rejected.
- 7) ☒ Claim(s) 20,21 and 34-37 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

1. The disclosure is objected to because of the following informalities: Claim 19 should end with a period.

Appropriate correction is required.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 11 and 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamilton et al. in view of Hall et al.

Hamilton discloses a helicopter display system comprising sensing means 80 for receiving environmental information about the canopy environment of the helicopter, imaging system 40, processor 100 for fusing the environmental data and imaging data on a common display (Fig. 7), except for showing aircraft position with respect to a landing point.

Hall teaches desirability of fusing aircraft position 54 with respect to landing point 62 on a display with image data (Fig. 4).

It would have been obvious to include position with respect to a landing area as suggested by Hall in conjunction with a fused display of image and environment data as suggested by Hamilton, in order that a pilot could have been aware of both his position with respect to a landing area and also position with respect to frame of reference of a cockpit, so that disorientation would have been minimized and a landing area would have been more easily found.

Regarding claim 13, Hall teaches use of a multifunction head down display
38.

Regarding claim 14, Hamilton teaches use of helmet mounted display
(col.9, line 47).

Regarding claim 15, Hamilton teaches use of FLIR (col. 6, line 7).

Regarding claim 16, Hamilton teaches use of video (col. 8, line 8).

4. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over
Hamilton et al. in view of Hall et al. and Dwyer et al.

Dwyer discloses use of a heads up display in conjunction with a combined
aircraft data display (Fig. 2;col. 3, line 50).

It would have been obvious to use a HUD as suggested by Dwyer in
conjunction with a combined aircraft display as disclosed by Hamilton and Hall, in
order to allow a pilot to observe flight data without having to look down at a
display or be constrained by a helmet, in order to more safely maneuver an
aircraft.

5. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over
Hamilton et al. in view of Hall et al. and Kelly et al.

Kelly discloses desirability of combining on an aircraft display obstacle avoidance
data 124,134,144 with aircraft position 102 with respect to a landing zone 110.

It would have been obvious to utilize obstacle data as suggested by Kelly
in conjunction with a system including image and environmental data as

disclosed by Hamilton and Hall, in order that a pilot could have avoided obstacles while still being informed of other necessary flight data.

6. Claims 18,19, 30 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamilton et al. in view of Hall et al. and Baker et al.

Baker discloses desirability of controlling inputs to an aircraft Fly by wire system based on obstacle avoidance inputs (page 14, paragraphs 0200-0202).

It would have been obvious to control a FBW system based on obstacles detected in a system as disclosed by Hamilton and Hall, in order that an aircraft normally under computer control could have been maneuvered more quickly away from objects that could have been collision risks.

7. Claims 32-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamilton et al. in view of Hall et al., Baker et al. and Kelly et al.

Claims are rejected for the same reasons as set forth previously in paragraphs Nos. 5-6.

8. Claims 20,21 and 34-37 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brent A Swarthout whose telephone number is 571-272-2979. The examiner can normally be reached on M-F from 6:30 to 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeff Hofsass, can be reached on 571-272-2981. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Brent A Swarthout
Art Unit 2636

**BRENT A. SWARTHOUT
PRIMARY EXAMINER**